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| 09/412,578      | 10/05/1999  | KOJI HIRATA          | 520.37710X00        | 9832             |

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EXAMINER

MAHONEY, CHRISTOPHER E

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2851

DATE MAILED: 11/23/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
**09/412,578**

Applicant(s)  
**Hirata et al.**

Examiner  
**Christopher E Mahoney**

Art Unit  
**2851**



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some\* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 20) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Preliminary Matters***

1. This Office Action supersedes the Office Action mailed October 3, 2001 and is presented to aid the applicant in expediting prosecution of the present application by presenting the grounds of rejection in further detail. Accordingly, the applicant's period for response is restarted to 3 months from the mailing date of this Office Action.

### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the light scattering layer provided between the second configuration element and the first configuration element must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

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***Specification***

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The abstract of the disclosure is objected to because of use of the word "means".

Correction is required. See MPEP § 608.01(b).

***Claim Objections***

6. Claims 12 and 18 are objected to because of the following informalities: The examiner believes in claims 12 and 18 that "sources\_is" is a typographical error which is meant to be --sources is--. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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8. Claims 7-12, 18-22, and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what elements the applicant is referring back to in claims 7, 12, 18, 22 and 24 when reciting "both interference sources".

It is unclear what range the applicant is claiming when reciting "about equal to" as in page 43, line 18 (claim 7).

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

10. Claims 7-8, 10-11, 18-21, and 23-24 rejected under 35 U.S.C. 102(e) as being clearly anticipated by Yamaguchi (U.S. Pat. No. 6,185,038). The applicant is directed to review the figures as well as column 3, lines 34-44. Yamaguchi teaches a screen for projecting an enlarged picture on sad screen from a picture display apparatus including a light source 1, 2. The screen comprises a first configuration element 5 having a plurality of lenticular lenses 5b on a light emission side, and light absorbing layers 6, provided on a light emission side of said lenticular

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elements. A second configuration element 7 is provided on an light emission side of the first configuration element. Column 3, lines 38-40 teach that the pitch of the lenticular lenses should be smaller than the pitch of the pixels. Column 19, line 53 is a teaching of setting the pitch of the interference lines of the interference sources to about equal to or less than the pitch of pixels projected. A light scattering material 9 may be mixed in the second configuration element.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi (U.S. Pat. No. 6,185,038) in view of Mitani (U.S. Pat. No. 5,815,313) or Ichikawa (U.S. Pat. No. 4,988,164). Yamaguchi teaches the salient features of the claimed invention including light reflection reduction (at column 6, lines 55-58). Although Yamaguchi does teach that the antireflection may be by any standard method, it does not explicitly state that the method is an anti reflection preventing film. Mitani teaches at column 3, line 66 to column 4, line 3 that anti reflection films are a standard method of performing antireflection. Ichikawa teaches in the abstract that anti reflective films are notoriously well known in the art. It would have been obvious at the time the invention was made for one of ordinary skill in the art to include the

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features taught by Mitani or Ichikawa for the purpose of cost effectively increasing contrast by reducing glare by utilizing readily available products/techniques. The examiner notes that Ichikawa discloses that the antireflection film may be used on any optical element while Mitani explicitly states that it may be used on the front diffusion sheet.

13. Claims 12 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi (U.S. Pat. No. 6,185,038). Yamaguchi discloses the claimed invention except for  $L_p/F_p$  within a range of 1.588 to 1.649. It would have been obvious at the time the invention was made for one of ordinary skill in the art at the time the invention was made to utilize a ratio  $L_p/F_p$  in the range of 1.588 to 1.649, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

14. Claims 1-6 and 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi (U.S. Pat. No. 6,185,038) in view of Hirata (U.S. Pat. No. 5,485,308). Yamaguchi teaches the salient features of the claimed invention except for a lenticular lens on the light incident side. Hirata teaches that it was known to provide a lenticular lens on a light incident side. The applicant is directed to review figure 54 for example, especially as compared to figure 55. The applicant is also directed to review column 2, lines 43-52 of Hirata. It would have been obvious at the time the invention was made for one of ordinary skill in the art to include the features taught by Hirata for the purpose of additional projection control. Furthermore, it would

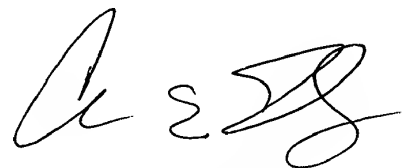
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have been obvious at the time the invention was made for one of ordinary skill in the art to utilize a light incident lenticular lens as an art known equivalent to a light incident fresnel lens.

*Conclusion*

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Christopher Mahoney at telephone number (703) 305-3475. The examiner can normally be reached 8:00 AM to 5:30 PM Monday through Thursday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams, can be reached at (703) 308-2847. The fax number for this Group is (703) 305-34[31,32]. Any inquiry of a general nature or related to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

CM  
November 12, 2001

A handwritten signature in black ink, appearing to read 'A E M', is positioned above the printed name and title of the examiner.

**Christopher E. Mahoney**  
**Primary Examiner AU2851**